

P200301025DK SEQ listing.ST25
SEQUENCE LISTING

<110> Copenhagen University Tech Trans Enheden
Mundy, John

<120> Plant disease resistance and SAR regulator protein

<130> P200301025

<160> 28

<170> PatentIn version 3.2

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 Val Ile His Thr Thr Pro Ser Asp Phe Met Asn Leu Val Gln Arg Leu
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85 90 95

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96

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144

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Lys Lys Pro Ser Ser Gly Ala Ala 55 Ala Ala Ala Ala Ala Gln Ala
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Ile	Arg	Pro	Gly	Ile	Leu	Ser	Pro	Leu	Pro	Ser	Ser	Leu	Pro	Pro	Ala	
				195					200					205		
gcc	gtc	ccc	ggc	cag	ttc	tcg	ccg	ctc	ccg	ttc	gac	gcg	agg	ccg	ctc	672
Ala	Val	Pro	Gly	Gln	Phe	Ser	Pro	Leu	Pro	Phe	Asp	Ala	Arg	Pro	Leu	
			210					215				220				
ccg	ttc	gac	gcg	agc	tgc	atc	agc	tgg	ctc	aac	gag	ctg	agc	ccc	atc	720
Pro	Phe	Asp	Ala	Ser	Cys	Ile	Ser	Trp	Leu	Asn	Glu	Leu	Ser	Pro	Ile	
		225				230						235				
ctc	cgg	gcc	gcc	tcc	gcc	ggc	gcg	gcc	tcg	tcc	ggc	agc	ggc	ggc	ggc	768
Leu	Arg	Ala	Ala	Ser	Ala	Gly	Ala	Ala	Ser	Ser	Gly	Ser	Gly	Gly	Gly	
	240					245					250					
ggc	agc	ggt	ggc	aac	acc	agc	aac	ggc	ggc	ggc	gcc	cgc	ccg	ccg	ccg	816
Gly	Ser	Gly	Gly	Asn	Thr	Ser	Asn	Gly	Gly	Gly	Ala	Arg	Pro	Pro	Pro	
255					260				265						270	
tcc	tac	tac	gcc	gac	cca	ttc	gtc	ccc	agc	cca	cgt	cac	ctc	ctc	gcc	864
Ser	Tyr	Tyr	Ala	Asp	Pro	Phe	Val	Pro	Ser	Pro	Arg	His	Leu	Leu	Ala	
				275					280					285		
acg	ccc	acc	gtg	ccg	tcg	ccg	gcg	acc	tgc	gcc	gag	ctc	ttc	agc	aac	912
Thr	Pro	Thr	Val	Pro	Ser	Pro	Ala	Thr	Cys	Ala	Glu	Leu	Phe	Ser	Asn	
			290					295					300			
ctg	ccg	gat	ctc	tag												927
Leu	Pro	Asp	Leu													
		305														

<210> 20
 <211> 306
 <212> PRT
 <213> Oryza sp.

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<400> 20

Met Glu Phe Pro Ser Ser Thr Ser Pro Ser Pro Ser Pro Ser Ser Gly
 1 5 10 15

Gln His Gln Gln Gln Pro Thr Thr Pro Arg Arg Gln Leu Gln Gly Pro
 20 25 30

Arg Pro Pro Arg Leu Asn Val Arg Met Glu Ser His Ala Ile Lys Lys
 35 40 45

Pro Ser Ser Gly Ala Ala Ala Ala Ala Ala Ala Gln Ala Arg Arg
 50 55 60

Glu Gln Gln Gln Pro Pro Pro Arg Ala Pro Val Ile Ile Tyr Asp Ala
 65 70 75 80

Ser Pro Lys Ile Ile His Ala Lys Pro Asn Glu Phe Met Ala Leu Val
 85 90 95

Gln Arg Leu Thr Gly Pro Gly Ser Gly Pro Pro Ala Pro Pro His Gln
 100 105 110

Gly Glu Ala Gln Ala Gln Asp Tyr Pro Met Met Asp Glu Ala Ala Ala
 115 120 125

Gln Gln Phe Phe Pro Pro Glu Leu Leu Leu Ser Pro Ser Ala Ala Met
 130 135 140

Ser Pro Ala Ala Arg Leu Ala Thr Ile Glu Arg Ser Val Arg Pro Met
 145 150 155 160

Pro Glu Pro Ala Pro Glu Tyr Val Asp Ile Thr Asn Gly Gly Gly Gly
 165 170 175

Gly Gly Val Asp Asp Gly Gly Leu Ala Ala Ile Leu Gly Ser Ile Arg
 180 185 190

Pro Gly Ile Leu Ser Pro Leu Pro Ser Ser Leu Pro Pro Ala Ala Val
 195 200 205

Pro Gly Gln Phe Ser Pro Leu Pro Phe Asp Ala Arg Pro Leu Pro Phe
 210 215 220

Asp Ala Ser Cys Ile Ser Trp Leu Asn Glu Leu Ser Pro Ile Leu Arg
 225 230 235 240

Ala Ala ser Ala Gly Ala Ala Ser Ser Gly Ser Gly Gly Gly Gly Ser
 245 250 255

Gly Gly Asn Thr Ser Asn Gly Gly Gly Ala Arg Pro Pro Pro Ser Tyr
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260

265

270

Tyr Ala Asp Pro Phe Val Pro Ser Pro Arg His Leu Leu Ala Thr Pro
 275 280 285

Thr Val Pro Ser Pro Ala Thr Cys Ala Glu Leu Phe Ser Asn Leu Pro
 290 295 300

Asp Leu
 305

<210> 21
 <211> 16
 <212> DNA
 <213> Oryza sp.

<400> 21
 atggaattcc cgtcgt

16

<210> 22
 <211> 19
 <212> DNA
 <213> Oryza sp.

<400> 22
 ctagagatcc ggcaggttg

19

<210> 23
 <211> 781
 <212> DNA
 <213> CaMV 35S promoter duplicated

<400> 23
 atggtggagc acgacactct cgtctactcc aagaatatca aagatacagt ctcagaagac 60
 caaagggcta ttgagacttt tcaacaaagg gtaatatcgg gaaacctcct cggattccat 120
 tgcccagcta tctgtcactt catcaaaagg acagtagaaa aggaaggtgg cacctacaaa 180
 tgccatcatt gcgataaagg aaaggctatc gttcaagatg cctctgccga cagtgggtccc 240
 aaagatggac cccacccac gaggagcatc gtggaaaaag aagacgttcc aaccacgtct 300
 tcaaagcaag tggattgatg tgataacatg gtggagcacg acactctcgt ctactccaag 360
 aatatcaaag atacagtctc agaagaccaa agggctattg agacttttca acaaagggta 420
 atatcgggaa acctcctcgg attccattgc ccagctatct gtcacttcat caaaaggaca 480
 gtagaaaagg aaggtggcac ctacaaatgc catcattgcg ataaaggaaa ggctatcggt 540
 caagatgcct ctgccgacag tgggtcccaa gatggacccc caccacgag gagcatcgtg 600
 gaaaaagaag acgttccaac cacgtcttca aagcaagtgg attgatgtga tatctccact 660
 gacgtaaggg atgacgcaca atcccactat ccttcgcaag accttcctct atataaggaa 720
 gttcatttca tttggagagg acacgctgaa atcaccagtc tctctctaca aatctatctc 780
 t 781

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<210> 24
 <211> 253
 <212> DNA
 <213> Agrobacterium NOS terminator

<400> 24
 cgttcaaaca tttggcaata aagtttctta agattgaatc ctgttgccgg tcttgcatg 60
 attatcatat aatttctggt gaattacggt aagcatgtaa taattaacat gtaatgcatg 120
 acgttattta tgagatgggt ttttatgatt agagtccgc aattatacat ttaatacgcg 180
 atagaaaaca aaatatagcg cgcaaactag gataaattat cgcgcgcggt gtcattctatg 240
 ttactagatc ggg 253

<210> 25
 <211> 189
 <212> DNA
 <213> Synthetic intron

<400> 25
 gtaagtttct gcttctacct ttgatataata tataataatt atcattaatt agtagtaata 60
 taatatttca aatatttttt tcaaaataaa agaattgtagt atatagcaat tgcttttctg 120
 tagtttataa gtgtgtatat ttttaatttat aacttttcta atatatgacc aaaatttgtt 180
 gatgtgcag 189

<210> 26
 <211> 207
 <212> PRT
 <213> Oryza sp.

<400> 26
 Met Glu Gln Gln Leu Ser Ser Pro Ser Ala Ser Gln Arg Gly Gly Gly 15
 1 5 10
 Arg Glu Leu Gln Gly Pro Arg Pro Ala Pro Leu Lys Val Arg Lys Glu 30
 20 25 30
 Ser His Lys Ile Arg Lys Gln Glu Pro Val Gln Gln Leu Arg Gln Pro 45
 35 40 45
 Val Ile Ile Tyr Thr Met Ser Pro Lys Val Val His Ala Asn Ala Ala 60
 50 55 60
 Asp Phe Met Ser Val Val Gln Arg Leu Thr Gly Ala Pro Pro Thr Ala 80
 65 70 75 80
 Pro Pro Gln Pro Gln Pro His His Pro Thr Leu Leu Ala Gln Met Pro 95
 85 90 95
 Pro Gln Pro Ser Phe Pro Phe His Leu Gln Gln Gln Asp Ala Trp Pro 110
 100 105 110
 Gln Gln Gln His Ser Pro Ala Ala Ile Glu Gln Ala Ala Ala Arg Ser
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115

120

125

Ser Gly Ala Asp Leu Pro Pro Leu Pro Ser Ile Leu Ser Pro Val Pro
 130 135 140

Gly Thr Val Leu Pro Ala Ile Pro Ala Ser Phe Phe Ser Pro Pro Ser
 145 150 155 160

Leu Ile Ser Pro Val Pro Phe Leu Gly Ala Thr Thr Thr Ser Ser Ala
 165 170 175

Ala Pro Ser Thr Ser Pro Ser Pro Met Gly Gly Ser Ala Tyr Tyr Trp
 180 185 190

Asp Leu Phe Asn Met Gln Gln Gln Gln His Tyr His His Gln Asn
 195 200 205

<210> 27
 <211> 238
 <212> PRT
 <213> Zea mays

<400> 27

Met Asp Pro Pro Ser Ser Ser Gly Arg Pro Thr Thr Pro Arg Arg Gln
 1 5 10 15

Leu Gln Gly Pro Arg Pro Pro Arg Leu Asn Val Arg Met Glu Ser His
 20 25 30

Ala Ile Lys Lys Pro Ser Ala Ser Gly Ala Pro Pro Ala Pro Gly Gln
 35 40 45

Gly Arg Pro Arg Asp His His His His His Pro Gln Pro Gly Arg Ala
 50 55 60

Pro Val Ile Ile Tyr Asp Ala Ser Pro Lys Val Ile His Ala Lys Pro
 65 70 75 80

Ser Glu Phe Met Ala Leu Val Gln Arg Leu Thr Gly Pro Gly Ala Gln
 85 90 95

Ala Gln His Glu Arg His Val Ala Asp Asp Asp Ala Thr Ala Asn Gly
 100 105 110

Gly Gly Val Leu Gly Gln Ala Phe Leu Pro Pro Glu Leu Leu Leu Ser
 115 120 125

Pro Ser Ala Ala Met Ser Pro Ala Ala Arg Leu Ala Thr Ile Glu Arg
 130 135 140

Ser Val Arg Pro Val Pro Ala Pro Ala Pro Ala Pro Asp Tyr Ala Ala
 145 150 155 160

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Asp Gly His Pro Arg Gly Gly Ala Arg Pro Arg Glu Ala Pro Arg His
 165 170 175
 Pro Val Pro Ala Ala Val Leu Ala Ala Ala Gly Arg Arg Val Gly Pro
 180 185 190
 Val Leu Ala Ala Ala Leu Arg Pro Gln Gln Arg Gln Leu Ala Gln Arg
 195 200 205
 Ala Gln Pro His Pro Pro Gly Ser Val His Gly Gln Arg Ser Ala Pro
 210 215 220
 Leu Ala His Ala His Gly Pro Thr Gly Gly Ser Arg Gln Pro
 225 230 235
 <210> 28
 <211> 271
 <212> PRT
 <213> Zea mays
 <400> 28
 Gln Gly Pro Arg Pro Pro Arg Leu Ala Val Ser Lys Asp Ser His Lys
 1 5 10 15
 Val Arg Lys Pro Pro Val Ala Pro Gln Arg Gln Gln His Gln His Gln
 20 25 30
 Gln Pro Ala Ala Gln Leu Gln Gln Gln His Gln Tyr His Gln Gln
 35 40 45
 Gln Gln Gln Gln Gly Arg Gln Pro Val Ile Ile Tyr Asp Ala Ser Pro
 50 55 60
 Lys Val Ile His Thr Lys Pro Gly Asp Phe Met Ala Leu Val Gln Arg
 65 70 75 80
 Leu Thr Gly Pro Gly Ser Thr Ser Gln Ala Gln Phe Asp Ala Ala Ala
 85 90 95
 Ala Ala Ala Gly Pro Ser His Pro Ala Ala Met Glu Phe Glu Pro Arg
 100 105 110
 Glu Phe Leu Leu Ser Pro Thr Ala Ala Leu Ser Pro Ala Ala Arg Leu
 115 120 125
 Ala Ala Ile Glu Arg Ser Val Arg Pro Leu Pro Pro His His Ala Pro
 130 135 140
 Ala Ala Val Pro Pro Tyr Phe Gly Ala Thr Asn Asp Asp Gly Phe Phe
 145 150 155 160

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Leu Pro Gly Ser Ala Asp Met Asp Ser Leu Ser Ala Ala Leu Gly Pro
165 170 175

Pro Ala Gly Arg Pro Gly Ile Leu Ser Pro Ala Ala Leu Pro Pro Ala
180 185 190

Ala Ser Thr Gly Leu Phe Ser Pro Met Pro Phe Asp Pro Ser Cys Leu
195 200 205

Ser Trp Leu Ser Glu Leu Ser Pro Phe Leu Pro Ser Ala Gly Thr Arg
210 215 220

Ala Ala Ala Ala Gly Leu Leu Asp Gln Ala Pro Phe Ala Pro Ser Pro
225 230 235 240

Arg Ser Ser Leu Leu Leu Ser Thr Pro Thr Met Pro Ser Pro Ala Thr
245 250 255

Phe Ser Val Leu Glu Phe Phe Ser Ser Pro Asn Phe Pro Asp Leu
260 265 270